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ON THE

PHYSICAL AND MORAL EFFECTS

OF THE USE OF

T O B A C C O

AS A LUXURY

A PRIZE ESSAY.

BY A. H. GRIMSHAW, A. M., M. D.

"It is good neither to eat flesh, nor to drink wine, nor *any thing* whereby thy brother stumbleth, or is offended, or is made weak."—ROM. xiv. 21.

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A premium having been offered for "the best tract" on the subjects discussed in the following pages, the author of this having become convinced of the injurious effects of Tobacco upon himself has been led to enter the lists in order that he may aid in promoting truth. Written amid the hurry of professional engagements, I must beg its defects to be overlooked, and ask that the intention to do good be accepted as an excuse for deficiencies in style and manner of argument.

1. The first of these is the fact that the
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A N E S S A Y , & c .

COMMERCE and civilization seem to have been the instruments, not only of carrying those things which are beneficial, good and useful, from one nation to another, but also appear to have disseminated throughout the world all the evils and diseases which injurious habits have engendered. Among the customs, thus spread abroad, we find that of using tobacco as a luxury. It is my intention, in the following pages, to lay before the reader the most important reasons why this article is injurious, physically and morally.

In endeavoring to describe the effects of tobacco, I shall "nothing extenuate," and shall aim to tell nothing but the truth. Taking care to avoid mere sarcasm, which is not argument, and the errors of most reformers, excess, I proceed to argue, the first proposition, that tobacco is injurious to the healthy human constitution, as ordinarily consumed as a luxury. If I establish this point, the second, that it is morally or mentally injurious, must be granted.

The prescribed limits of this tract preclude the idea of giving a history of this weed, *Nicotiana Tabacum*; it matters little by whom it was introduced or from whence it spread. Mere antiquity assigns nothing in its favor; universality of use is equally feeble, in proving that it is innoxious. Lying and drunkenness are as "old as the hills," and as common as the air we breathe. They are not right on that account.

We may judge of the effects of any poison, when taken in small and frequently repeated quantities, by examining its effects in large or "poisonous" doses. No man of sense will deny that Alcohol in large doses is a poison; so with tobacco: but the human system learns to bear a large

quantity of alcohol without apparent effect ; so with tobacco : the frequently repeated use of small doses of alcohol does not produce as speedy and manifest an effect as large quantities, but they are as surely fatal ; so with tobacco.

This drug is ranked among the acrid sedative narcotics ; it is grouped with Belladonna (deadly nightshade) and Stramonium (thorn-apple ;) both of the latter are feared and shunned as deadly poisons. As poisons, their principal effect is to produce delirium ; so that tobacco has especial power to derange the mental faculties. Chemists tell us that tobacco contains a principle called *nicotia* or *nicotin*, also *nicotianin*, probably the odorous principle, and when distilled at a temperature above 212 deg. yields an empyreumatic oil, "a most virulent poison." A single drop of which injected into the rectum of a cat produced death in five minutes. It is doubtful whether there are two poisonous principles in tobacco, or whether one (the oil) is the product of destructive distillation. In all forms in which tobacco is used, either in the act of chewing, snuffing, or smoking, a poison is introduced into the system. *Nicotia* capable of producing instant death, in sufficient quantities, is absorbed. I do not find that any plant of this family possesses nutritious qualities ; all are *poisons*.

I shall occupy a brief space in relating the poisonous effects of this drug. I use the term poison in the common acceptance of the term. In the form of snuff, tobacco has caused death when taken internally. "Orfila remarked that five and a half drachms of common rappee, introduced into the stomach of a dog, and secured by a ligature, caused nausea, giddiness, stupor, twitches in the muscles of the neck, and death in nine hours ; and that two and a quarter drachms applied to a worm, proved fatal in a single hour." The infusion of tobacco produces death. Four ounces injected into the anus of a dog killed it in ten minutes. Dr. Eberle relates the case of a lad in Lancaster, Pa. killed by the injection of an infusion of tobacco. The leaves moistened and applied to the skin have produced death. Soldiers have used them as an external application to produce sickness and shirk duty. A little boy was killed by the application of the expressed juice of the leaves to his head.

Dr. Christison has seen "an instance in which the excessive use of snuff occasioned twice, at distant intervals, an attack resembling imperfect apoplexy, united with delirium." In the form of smoke, tobacco has proved to be poisonous. Marshall Hall relates a case in which death

nearly took place from the use of two pipes by a young man "for his first debauch." "Gmelin has quoted two cases of death from excessive smoking—caused in one case by seventeen, in the other, by eighteen pipes smoked at a sitting."

Of the preparations, I mean chemical, it is a well known fact, that in proportion to their concentration, they are fatal. Of *nicotia*, made famous from the use of it by Count Bocanne, I have spoken above; I have also alluded to the oil and its poisonous properties. I wish the effects of these constituents to be borne in mind, for, as I have stated, they are introduced in small quantities into the system by every habitual user of tobacco.

We come now to the conclusion that tobacco is a violent, certain and acrid poison, both to man and the inferior animals. We are certain of this, from experiment and observation. The question for decision now arises, whether that which is, in large quantities, a deadly poison, can be used with safety and impunity, in small and frequently repeated doses? Whether the human system can become habituated, or can adapt itself to the use of poisons?

A man may learn to sleep and live, or *vegetate*, in an atmosphere charged with carbonic acid gas, without being conscious that he is breathing poison. Again, the human olfactory learns to bear, without perceiving, most horribly offensive odors. But the poisonous effects of the odoriferous substances are still active. Men learn to drink large quantities of alcoholic liquors "without showing it;" the same quantity, which after ten years' experience, proves only an agreeable "nip," would at first have produced intoxication. The *drinker* does not feel as great an effect, but the alcohol is silently and surely undermining his constitution. He thought his system had learned to bear it; but his bloated appearance and "whiskey liver" prove the contrary.

Carbonic acid gas and alcohol in large quantities, prove rapidly fatal; both are introduced into the system, in small quantities, without producing any appreciable effect at the moment, because the dose is small; but both are in the end fatal in their effects. Men learn to live in "sickly climates." That is, a native of a Northern State removes to New Orleans; he takes yellow fever, and if he recovers, he is said to be acclimated. He does not suffer from a second attack; he braves the pestilence. But is he as long lived as he would have been in a less sickly climate? Does not the poison work slowly and surely? Does not his sallow complexion prove it?

Thus we see that the human system appears "to bear," to adapt itself to the use of poisons, but the appearance is fallacious; the poison is working, silently, slowly, but surely.

Analogy, then, proves that tobacco, like alcohol, carbonic acid, fever miasm, and fetid exhalations, is poisonous in small doses frequently repeated. In fact, observation proves that any agent injurious in large quantities, or poisonous in large doses, is also injurious and poisonous even when taken in more minute particles. The human system will not learn to bear the use of arsenic, alcohol, or carbonic acid gas, nor the constant emanations from putrid animal or vegetable substances. Can we then believe that it will adapt itself to so poisonous a substance as tobacco?

The reader is, I hope, prepared to grant the truth of all I have thus far advanced; tobacco is a poison—its physical effects in large quantities are always injurious. How shall I prove that used as a luxury, either chewed, snuffed, or smoked, it is attended with evil consequences? I do not mean when used intemperately, but when used *moderately*. I must, if analogy does not give me reasons strong enough to convince, appeal to facts. I must prove, by competent and credible witnesses, that it has, in many cases, proved injurious. I shall therefore proceed to quote the opinions of some of the most learned medical authorities. Men who were not engaged in propagating a reform movement, who were unconnected with any society, temperate or total abstinent, and were therefore mere recorders of facts, and propagators of *truth*.

This drug acts through the medium of the nervous system. Dr. Wright, of Birmingham, states as the result of his experiments, that it is a sedative, or is capable of lowering the tone or force or strength of the functions of the nervous system. It is called a sedative narcotic, and is capable, in small quantities, of reducing the action of the nerves below par. We all profess to use it for this purpose, because we say it soothes or produces a sedative effect.—Dr. Wright also states, that after giving dogs "from two to five grains, twice or thrice daily, mixed with their food, the result was a slow declension of nervous power, ending in complete marasmus and starvation. In particular I remarked an intermittent action of the heart, habitual dragging of the hind legs, a seeming loss of venereal power, and a total disinclination for sexual intercourse. The muscles of voluntary motion became soft and shrivelled.—The hair at first became rough, and then it fell off; the pupils enlarged, and the eyes swam with tears; succeeded

finally by purulent and ichorous discharges. After death, the blood was invariably found fluid, deficient in fibrine, and particularly so in red globules: the heart was pale, soft, and smaller than natural: the body never stiffened, and decomposed very rapidly. The gums began to swell and bleed early in the experiments, and the teeth loosened and sometimes dropped out. The mucous membrane of the mouth, nose and trachea was softer, more tumid, and more vascular than usual." This surely is an array of symptoms, sufficiently terrible to deter any one from using tobacco. But, my reader says, I am not a dog, and I do not mix it with my food!

I grant you are not a dog, yet the experiment is nevertheless sufficiently conclusive. You do not mix it with your food and with your blood? All parts of the body possess the power of absorbing or sucking up matters placed upon them, whether vapors, gases, solids or fluids. If I lay a tobacco leaf upon your skin, the juice will be absorbed, and vomiting will occur; if I breathe the fumes of mercury salivation will take place; if I rub mercurial ointment, which contains *metal*, on my skin, it will be absorbed, or sucked up, and produce its peculiar effect—salivation. If I breathe the fumes of onions or turpentine, I can detect the odor of these substances in my secretions for some time afterwards. By means, then, of this absorbing power, if I chew, snuff, or smoke, the properties of tobacco are introduced into my system, as certainly as when used by "injection" or laid on my skin in the form of wet leaf. Therefore the experiments which prove tobacco, when taken internally, to be capable of producing results so terrible, also prove, that when snuffed, chewed, or smoked, it is deleterious, in proportion to the amount used, and to the constitution of the consumer.

Tobacco must produce some effect when snuffed. It does produce its peculiar sedative effect upon the system, as well as a local injurious effect upon the lining membrane of the nose. The latter it produces as a foreign or irritating body, independent of its own peculiar action. If I "snuff" I am in danger of apoplexy. Dr. Salmon says, "More persons have died of apoplexy, since the use of snuff, in one year, than have died of that disease in a hundred years before." Dr. Clay says, "Almost every one I have known die of late of that dreadful disease (apoplexy) were inveterate snuffers." The opinion of an English surgeon is mentioned in the Medical Examiner for October, 1850. "Many circumstances, of late, have occurred, in which I have seen the most injurious effects of the use of tobacco upon the

nervous, circulatory, and digestive functions. A friend of mine became a perfect hypochondriac by the use of snuff, and was at once relieved by leaving it off. Upon returning to the use of it, he again suffered as before, and was again relieved by ceasing to take it." Here there was no doubt. Another gentleman was covered with an eruption resembling psoriasis, from head to foot, and got well immediately when he left off the use of snuff. Three times he suffered a relapse upon taking snuff, and was cured by abandoning the injurious practice.

Dr. Clay further states, that he has observed the female lace-makers, near Newport Pagnell, are subject to hysterical or nervous complaints, "and (snuff) gives them an early stamp of age; at thirty a snuff-taker looks as if forty years of age." He also attributes the prevalence of dyspepsia, among snuff-takers, to its use. Upon an accidental interruption off snuff-taking for a few days, the pains do not occur; upon a return to snuff, the pains return." Also, the same author believes that "snuffing has a strong tendency to encourage a determination of blood to the head, giving rise to apoplexy."

Every medical man acts upon, and his own daily observation proves the truth of the maxim, *where there is an irritation to that part, there is a flow of blood*. Snuff produces an irritation of the lining membrane of the nose, there is an increased flow of blood to the nose, and of course to the brain. The great secretion from the nose, caused by snuffing, demands a large supply of blood; hypothesis, as well as observation, proves that the snuff-taker is in danger of apoplexy.

Snuffing has an injurious effect upon the voice: the lining of the nose will be thickened, and the passage clogged with mucous and snuff. Now it is a familiar fact, that a man with a cold in his head, when his nose is "stopped up," speaks, to use a common but incorrect expression, "through his nose." In order that the voice may be clear and perfect, all the air passages must be in a sound condition. A snuff-taker's nose is not in a sound condition, therefore his voice is imperfect, cracked or hoarse.

Besides this, it is a filthy practice. The snuff-taker's nose has a swollen and red appearance: the nostrils of an inveterate snuffer, resemble the sooty orifice of the chimney of an iron foundry, which belches forth volumes of carbon. The fingers are soiled, the linen is dusted with snuff, and the handkerchief is a disgusting object; so much so, that the confirmed snuff-taker carries two, one for show and one for use. Snuffing we conclude to be useless, dirty, and in-

jurious, not to say anything of the waste of time, which is condemned by every minister of the gospel, and considered an argument against the fashionable amusement of dancing. Earl Stanhope says, "if we suppose the practice to be persisted in for forty years, two entire years of the snuff-taker's life will be dedicated to tickling his nose, and two more to blowing it."

I will next examine the effects of chewing, a custom even more universal than snuffing; affording less opportunity for dignified flourishes and manipulations. The chewer chews and spits, as a matter of course: the snuffer taps his box-lid, shakes off the superfluous dust from around his pinch, "and keeps thrusting it at his nose, after which he shakes his head, or his waistcoat, or his nose, or all three, in the style of a man who has done his duty." Chewing, or *chawing*, as it is regularly termed, is more injurious than either snuffing or smoking. It creates a greater waste, in the form of saliva, and, from the nature of the operation, can be performed more constantly, in all places and at all seasons.

I have shown that an infusion of tobacco, when used by injection, or applied to the surface of the body, has produced death, preceded by tremors, prostration and sickness. The tobacco chewer knows well that his first essay at infusing tobacco in his mouth, was followed by sickness, prostration and tremors, that his knees quaked under him, that he was literally "good for nothing." I have quoted experiments, which proved that the constant use of small quantities of tobacco produced disease and death in dogs. The chewer is liable to swallow his saliva, which, when the quid is in his mouth, is a strong infusion of tobacco; moreover, particles of tobacco which adhere between his teeth and to the lining of the mouth, are constantly swallowed with the food and drink; for tobacco-chewers seldom rinse the mouth before eating. Therefore, we may justly conclude, that tobacco-chewers will be afflicted, to a limited degree, as were the dogs in Dr. Wright's experiments.

Nature has formed man so that all his organs shall act harmoniously: and the grand secret of maintaining health and vigor to a green old age, lies in never overtasking either mind or body, or any part of the body. Taste has been implanted in our "palate" to give us pleasure and to warn of good and evil. The use of snuff, indirectly, and chewing and smoking directly, injures their sense. Tobacco is an article which has so strong a flavor, that articles ordinarily sapid, and the delicacies of whose flavor can be appreciated, become insipid. The eye of a man confined in

a dungeon, can distinguish objects in comparative darkness, where the eye of one accustomed to the broad glare of noon-day is utterly useless. That is, the eye or tongue, if exposed to powerful stimulants, strong light or acrid substances, loses the power of perceiving delicate or mild impressions.

We may expect to find local as well as general effects from tobacco chewing. We do find that the mouth and adjacent parts are affected by the direct contact of the article in question; also general symptoms of disease are produced from the effect on the nervous system, and through this upon the stomach and other important organs.

An English author (Pereira) says, "The practice of *chewing* tobacco is principally confined to sailors." This remark will not apply to our country, where old and young, rich and poor, ignorant and learned, President and pauper, professional men and mechanics, with few exceptions, use "the weed." In fact, chewing seems to have taken the place, in this country, of snuffing. As but little attention has been directed to record observations upon the effects of tobacco as an article of ordinary use, it is difficult to prove that which, however, our own personal observation has made apparent. Thus we find nothing but general assertions, in most medical works, that tobacco is injurious, and is a frequent cause of disease. As *chewers* generally are *smokers* also, another difficulty arises, to show which practice has produced the mischief. But, if the weight of authority is against the use of it, and as the use of it by chewing or smoking is almost invariably attended by similar results, the testimony against tobacco will be equally strong, whether it is chewed or smoked.

The great frequency of "dyspepsia," or disorder of the stomach, and of constipation, a most troublesome ailment, parent to many others, is a fact which is familiar to every one. The medical man, no matter what his system or *pathy*, can bear testimony to the innumerable calls upon his skill for relief from these distressing maladies. The advertisements of quack pills, tinctures, &c., warranted to cure, and the fortunes of the quacks, reaped from the sale of these nostrums, are strong evidence that the above-named evils are very prevalent. In fact, it has become more fashionable to be sick and to have dyspepsia, than to say I am in perfect health, *I am a man*. We are far from being able to imitate the Athlete of Crotona.

It behoves us to inquire what are the causes of these diseases. "It is a well-admitted fact, that nearly three-

fourths of the diseases afflicting man are his own producing." But, says the tobacco-user, it does not follow that I have produced the disease which is afflicting me, this head-ache, this palpitation, this indigestion, this constipation, this languor, this loss of appetite, this thirst for strong drink, this loss of strength. Let us see; let us examine the facts of the case. No doubt you are addicted to many injurious customs. No doubt, for instance, your diet contributes, either in kind or quality, to cause your disease. No doubt your employment, in some cases, may lend its aid; no doubt your ancestors have, like you, vitiated their constitutions, and handed down to you the fruits of their folly: no doubt you sleep in close rooms, or drink alcohol in some form. Now all, or any of these, will cause, and do cause disease, unconnected with the use of tobacco. But this does not prove that tobacco is not a cause, and a fruitful one, of disease. Those who do not use tobacco are subject to ill health. The converse of the proposition is not true. But it is a fact, and we have ample testimony, that those who do use tobacco are *more* subject to disease than those who do not; all other circumstances being alike.

I will, at this point, quote some authorities on tobacco as a cause of disease. Thus, Dr. Prout says, it "disorders the assimilating functions in general, but particularly, as I believe, the assimilation of the saccharine principle. I have never been able to trace the development of oxalic acid to the use of tobacco; but that some analagous and equally poisons principle (probably of an acid nature) is generated, in certain individuals, by its abuse, is evident from their cachectic looks, and from the dark and often greenish-yellow tint of their blood." Dr. Carson, (Professor of Materia Medica in the University of Perma,) says, "the excessive use of tobacco in this way (chewing) is productive of derangement of the stomach, with dyspeptic symptoms, referable to an enervated state of this organ, in connection with which there is general nervous prostration, and more or less derangement of the action of the heart and other organs." Dr. Wright, of Birmingham, says, "I attribute many diseases I have known to succeed an extravagant use of tobacco by individuals of strong, hearty, nervous temperaments, and a more moderate use of it in subjects physically less favored: from its use arise weakness of the muscles of voluntary motion, and depravity of the secretions."

Dr. Wood, *Prac. of Med.*, Vol. I., classes tobacco among the causes of dyspepsia. Dr. Chapman, in an article "on

constipation," published in 1838, in speaking of the causes of this state of the intestinal canal, says, "Tobacco is, perhaps, more pernicious in this respect. Numerous are the instances of the constipation which I have met with from this article. The primary effect of it, in whatever mode consumed, is rather aperient, and the persistent, or inordinate use, directly the contrary." Also, in an article on *dyspepsia*, the same author uses the following emphatic language: "The most common of the causes of the disease, in certain parts of our country, is the enormous consumption of tobacco in the several forms. Certain I am, at least, that a large proportion of the cases of it, which come to me, are thus produced. It is usually very obstinate, and sometimes of a truly melancholy character."

Then follows the description of several striking cases. One, "a member of Congress from the West, in the meridian of life, and of a very stout frame, who told me, that he labored under the greatest physical and moral infirmity, which he was utterly unable to explain, and that, from having been one of the most healthy and fearless men, he had become, to use his own phrase, "sick all over and timid as a girl." He could not present even a petition to Congress, much less say a word concerning it, though he had long been a practising lawyer, and served much in legislative bodies. On inquiry, I found that his consumption of tobacco was almost incredible, by chewing, snuffing and smoking. Being satisfied that all his misery arose from this poisonous weed, its use was discontinued, and in a few weeks he entirely recovered."

Also two cases of insanity, resembling *delirium tremens*, are detailed; each chewed and smoked to excess. Dyspepsia at first occurred, "attended by great derangement of the nervous system, and ultimately, the mania I have mentioned." Again, two other cases, resembling *delirium tremens* are quoted. Both were cured by abstinence from pernicious practices."

"All confirmed chewers," says Dr. Clay of Manchester, "are more or less subject to long standing diseases of the stomach and liver." It is true the injury on the constitution of man, by the common mode of using, is not perceived at once; and it is difficult to persuade the lovers of tobacco of its bad tendency." Dr. Rush states, "that smoking and chewing rendered simple fluids insipid to the taste, hence the anxiety to have the strongest spirits; by this alone, brandy, which formerly was rarely used, is now the most common drink of cigar smokers."

It would be a very easy matter for me to multiply quotations and to give the opinions of a host of authors, whose writings are acknowledged to be to the medical profession, what Blackstone, Coke and Story are to the legal. I shall add some further authorities on this subject, (the injurious effects of tobacco,) under the head of smoking.

I have proved my case, if the weight of opinion or good authority is worth anything at all in deciding a disputed point. In courts of justice, certain authors are received as authority, their opinions are admitted as evidence, good and conclusive, as to the interpretation of Law. Notwithstanding the strongly urged, but ill founded opinion of the tobacco chewer, to the contrary, I claim the right to prove to him that his favorite weed, is the source of many of his ailments; at least is combined with other causes, capable of producing dyspepsia, derangement of the bowels, debility of the muscular system and tremors of the nerves. It is, also, a fruitful source of thirst and especially for strong drinks; of this, however, I shall speak hereafter.

If many cases have occurred, in which a train of distressing symptoms, even to *delirium tremens*, have presented themselves; and if these cases have occurred among consumers of tobacco, and have been rapidly cured by abstinence from this substance, it is fair and legitimate to conclude that tobacco was the cause. It is not fair for my opponent to say that this was a coincidence, that tobacco was the antecedent, but not the cause. I grant that many an antecedent is improperly called the cause; but in this case, the character of the observers for fairness, truthfulness and acuteness, is such as prove that their opinion is correct, that tobacco was the cause as well as the antecedent; and that the cure was justly attributable to the cessation of this pernicious practice,—the use of tobacco.

Some one may exclaim, But these evils, these terrible cases you have laid before me, arose from the *immoderate use* of an article good in itself, or, if properly used, not injurious. It is highly probable that many a strong man uses tobacco, moderately, without experiencing any appreciable effect, just as is the case with alcoholic drinkers. But, if the immoderate use of an article is capable, as I have shown, on the authority of Dr. Chapman, of producing the most alarming consequences in "one of the most healthy and fearless of men," we may, from the effects of other causes, conclude that the moderate use will be attended by distressing and painful results, in less vigorous constitutions. After a few trials, some of the most appreciable and promi-

nent symptoms of the effect of tobacco, seem to disappear. That is, when one has passed the first ordeal, he may not vomit or break into a cold sweat ; but, let him chew a little beyond his usual allowance, let him smoke a cigar stronger than customary, or swallow a little smoke, and he will speedily find out that he is introducing an enemy to whose presence his system has not become entirely insensible.

Every tobacco chewer knows, and the writer speaks from experience, that the use of tobacco in this way vitiates his taste, creates thirst ; at first in small, afterwards in larger quantities, produces nausea, or at any rate loss of muscular vigor and nervous tone : the hands tremble, the knees feel weak. Beefsteak, bread, butter, milk, &c. do not prostrate. No man has to learn to eat bread or meat, has to suffer vomitings and sweatings before he can master his dinner and become an eater.

Chewing, and using tobacco in other forms, tends to weaken us directly, by its action on the nerves, and indirectly, through the nervous system, by its effect upon the stomach. If injected into the rectum, if washed upon the surface, if laid upon the skin, in the form of wet leaf, faintings and vomitings occur. It has, then, a powerful effect upon the stomach. The question is, has it the same effect when chewed ? I have stated above, that the chewer has in his mouth a strong infusion of tobacco, some of this must be absorbed, or sucked up ; besides, particles are likely to be swallowed with food and drink. We find in tobacco chewers "weak stomachs," either poor appetites, or, if the appetite is good, deficient digestion. Why should the working man suffer with dyspepsia ? He is engaged in healthful labors which promote appetite. His system demands food and he is hungry. He has difficult digestion, *dyspepsia*, because his stomach cannot perform its functions ; he is using an article which weakens the muscular powers of the stomach ; he is depriving this organ of a proper supply of nervous energy to carry on that most wonderful process, *digestion* ; he is, besides all this, continually ejecting a fluid which nature has intended to be swallowed with his food, and aid in digestion ; in fact, the saliva is the exclusive agent in the digestion of one class of nutritious substances, the farinaceous, such as potatoes, rice, &c. But, he has not only spit out an important aid to digestion, and thus brought on dyspepsia, he has rendered his salivary glands insensible to the stimulus of articles so simple as potatoes and bread ; the saliva will only flow when the powerful and acrid weed tobacco is in the mouth. Again, the whole system is weakened by the unnatural demand upon

its energies to supply the quantity of spittle, ordinarily ejected by a *chewer*. He has cut off the supply and increased the demand. He is as hard a master as the merciless Pharaoh!

There is an old Scotch proverb that "many a little makes a muckle;" so with tobacco, the constant use of a little, even in a strong constitution, in the end, "makes a muckle" of sickness. It is well known to physicians that the demand upon the constitution for any unnatural discharge is most injurious; a wound discharging pus, which is made from the blood, is a cause of debility; now if a few ounces of pus can weaken a man, a few ounces of saliva, unnaturally made, by an artificial and improper stimulus, will also weaken. Tobacco, then, is injurious, by depressing the nervous power, by injuring the stomach, by injuring the salivary glands and by creating an undue secretion of saliva.

It does not prevent tooth ache, no matter in what form it is used. The teeth of tobacco chewers are as liable to decay as those who do not use it. The writer of this has extracted hundreds of teeth, from the jaws of the most confirmed tobacco chewers, from the heads of those whose cavernous stumps sent pestilence around, and yet whose mouths were filled day and night, with the boasted prophylactic. Tooth ache is as common among men as women. It is as common among the lower orders of women who chew snuff, as among the upper classes who do not defile their mouths. Constant chewing wears down the teeth, and if nature has deigned to provide the chewer with sound and lasting teeth, he will not let them stay in his mouth, he grinds them down. I need quote no authorities. If you chew, examine your own teeth, if not inspect your neighbor's who "uses the weed," and you will find them ground down, worn away by the constant attrition against tobacco and grit contained in it: for even water "wears away a stone."

In Ireland, it is a well known fact, good teeth are more common than in this country. Emigrants come over to this country with blooming cheeks and sound teeth, even those who have reached forty years of age, bear these marks of youth, while at the same age our women are broken down. These blooming emigrants change their habits of life, break the rules of moderation and health, injure their stomachs by errors in diet and by using tobacco; but, instead of tobacco saving the teeth, in a few years they are all decayed—"the weed" has not performed its boasted office; it has, on the contrary, aided to destroy, by undermining the constitution.

Good teeth are not only an ornament ; are not only indispensable to the public speaker in giving correctness to his pronunciation ; but are also very useful and very necessary in the act of digestion. All animals are supplied with some means of crushing or grinding or preparing their food for the action of the stomach. Thus birds have gizzards, mammals teeth, (with few exceptions). We would condemn a chicken, as being destitute of instinct and utterly worthless, which would refuse to swallow pebbles, the substitutes for teeth in the gizzard. Now the teeth of man are as necessary as the teeth of dogs or horses. And a man without teeth is in as miserable a plight as a cat without claws, or a hen without a gizzard.

The use of tobacco injures the teeth, by its direct local action on the gums ; by the constant chewing wearing away the enamel ; by the injury inflicted on the constitution. Again, bad teeth are a principal source of headaches, so called neuralgias, and also of indigestion. Food badly masticated is not mixed up with one of the proper solvents, saliva, and also in its crude and lumpy state requires a longer period, in the stomach, for digestion. But I have shown above, that tobacco prevents the flow of saliva when ordinary articles of diet are used ; now I show that the loss of teeth prevents a necessary and important part of the process of digestion, by precluding mastication, and I believe I am right in attributing the loss of teeth to the use of tobacco.

The writer can state from his experience on his own person, that the use of this article does not prevent the early decay of teeth and does not in the slightest degree alleviate the pain of tooth ache. Chewing always produced, an excessive secretion of saliva, a dry throat, a desire for "drinks," a husky voice, and muscular tremors ; the hand has frequently been rendered as unsteady, as the hand of an habitual drinker. Every chewer has experienced the effects of tobacco on his own nervous system.

If the record of a single case, in which the "luxury" was used by chewing moderately, by smoking with comparative moderation, can be of any use, the writer can state that in his own person, the most beneficial results have followed abstinence from the pernicious habits above mentioned.

That no pleasant, beneficial or desirable results follow the use of tobacco is manifest. If the breath is rendered offensive, as we know it is ; if the teeth are injured, as we believe them to be ; if dyspepsia is produced, as we are confident it is, certainly nothing but evil attends the con-

sumption of this noxious weed. It is believed by all judicious practitioners of medicine, to be too dangerous to use as a medicine. The benefits, as a remedy, do not counter-balance the risk of using it. In the manner commonly used by the community it does not cut off in a moment, it is not a cholera, sweeping down its victims as the mower the grass; it is a "consumption," undermining, stealing upon the victim slowly and steadily. "So *insidious* are the effects of this plant, and so *insensible* have the community been to its dangers, that very few have regarded the use of tobacco as the cause of swelling the bills of mortality. But, however startling, it is nevertheless true, that multitudes are carried to the grave every year by it alone." The writer can refer at this moment to the case of a boy, about ten years old, who chews tobacco; the effect is at times a total loss of appetite and an ejection of all food from the stomach. He is confident that many cases of disease which pass under his notice, are produced, or at least aggravated, by the use of this article. A gentleman of this city, a victim to dyspepsia, had been treated by various physicians and had swallowed pills, potions and tinctures, but all with no avail; he applied to a homoeopath, who immediately directed abstinence from tobacco, among the interdicted articles of diet; a perfect cure was produced. Homoeopathy reaped the benefit; at any rate, the practitioner of infinitesimals had "hit the right nail on the head."

Chewing tobacco is an offensive habit, and is injurious to bystanders as well as to the one who indulges in this practice. Thus in a shop full of workmen, or in a public meeting or lecture, the floor will be covered with saliva, "tobacco spittle," which will dry upon the floor and by the action of the feet arise in the form of dust, to irritate the eyes and nose and to aid the vitiated atmosphere of a crowded room to injure and irritate the lungs of the workmen or audience. It is an ungentlemanly habit, although many gentlemen are afflicted with it. I have seen the floors of the Lecture rooms of the University of Penn., as *filthy* as any horse stable, before the groom had performed his morning cleansing. I have seen the passage between the seats of a rail-road-car, in such a foul and *mucky* condition, that no lady could walk with safety or comfort, from her seat to the door. Is any custom which produces such a state of affairs gentlemanly or proper?

The tobacco-chewer cannot point to any one redeeming feature in the habit. I can point to many so disgusting as to condemn it immediately in the eyes of any unprejudiced person. Suppose a man, who had never witnessed the per-

formance of chewing a "quid," to be introduced to an assembly of Americans, and to see chewing in "full blast." He would of course conclude that the "quid" must be an article of delicious flavor—or, at least, in its effects so pleasant and soothing, or intoxicating, as to repay any little inconvenience from bad taste or soiled floors, or continual spitting. The novice tastes the weed, and finds it acrid and disagreeable; but, says he, it must be good, and so he perseveres in the trial; he chews and spits, but alas! he finds himself deceived, his knees tremble, his head reels, his mouth tastes badly, a clammy sweat bursts from his tense forehead, his stomach *turns*—he has learned his first lesson. But, what has he gained? A partial immunity from these disagreeable effects. Does he feel stronger? No—on the contrary, his muscular vigor is less. Does he eat more? No. Does he weigh more? This is a question easily solved, for the universal excuse of the tobacco-chewer is, if I did not chew, I would grow too fat. Tobacco, when chewed, if swallowed is poisonous—if spit out, it certainly is not nutritious. The popular idea that it prevents hunger, is only true to a limited extent; that is, the appetite of the chewer is lessened for reasons stated above. But his system needs as great a supply of food to maintain it at a healthy standard, after chewing, as before.

I conclude, then, that men chew from mere habit—one man learns because another uses tobacco. The boy learns because it is *manly*. Bad habits are easily acquired.—Swearing becomes a second nature; to break oneself of the habit requires a great deal of vigilance. Chewing is a habit. I knew one man, who commenced using tobacco because he had a habit of chewing little pieces of wood. The schoolboy acquires a habit of twisting his buttons, or twirling a lock of his hair when he is reciting his task: prevent him from twisting and twirling, and his lesson is forgotten, the memory refuses to yield its store. I wish to show that tobacco is chewed, not because its effects are pleasant, but from mere habit. I have shown that it is an injurious custom, I can show that it is an expensive one. I think it is evident it is useless. But, when the minister chews in his pulpit, the hearer in his pew, the judge on the bench, and the advocate at the bar; the teacher and the scholar; the captain and the sailor—it shows a habit so universal that it will require Herculean power to uproot it. It must be more than a custom, says one; it must have some good effect, or men would not pursue it. Is swearing good, useful or pleasant? Yet the habit of swearing is as common

as that of chewing. Women submit to the operation of boring their ears, in order to wear ear-rings. Are they useful or pleasant? In China, females submit to a most painful distortion of the feet: these small, distorted feet are not pleasant to walk upon, nor as useful as the undeformed ones, yet they are as common in China, among ladies, as chewing among men in America. Fashion or custom rules us with a rod of iron, and leads us to do many a foolish act. Even if the custom was pleasant, but injurious, common sense would dictate its abandonment. But if it is neither pleasant nor beneficial, its continuance is downright folly. If it is also both useless and expensive, we ought to bestir ourselves to get rid of this item of expenditure. The Chinese have a habit of smoking opium. This is pleasant, but injurious. Are they not fools to continue the practice? But the opium smoker or chewer experiences pleasure—the tobacco chewer does not: there is then more excuse for the ignorant Chinese than for the intelligent American.

I am not one of those who would deprive men and boys of amusements, provided they are not injurious. Thus dancing, romance-reading, and attending the theatre, are not injurious in the abstract. No one was ever injured by a dance, in a proper place and at a proper season; nor, by the reading of novels occasionally, such as those written by Scott or Cooper: the mind desires light food as well as solid; it needs recreation. There are redeeming features in dancing and novel-reading, under proper restrictions;—but, as I have said, there are no features in tobacco chewing to recommend it to any one. It relieves neither body nor mind—it does not assuage pain, it does not support strength, it does not, like opium, transport us to the land of dreams; it seems to me that it does soil the mouth, injure its structure, causes incessant spitting, and injures the health. Nine tobacco chewers in ten, if honest, will confess that it is an injurious and troublesome habit, and one likely to become more and more firmly rooted. I have scarcely ever met a man who would not be glad to discontinue the practice, if he had sufficient self-command.

It remains for us to examine the effects of smoking. I have said, above, that chewing is more injurious than smoking, because it is a practice which can be indulged in at all times. The judge, the juror, and the workman, cannot smoke incessantly—there must be periods, and long ones, of rest from this custom.

I cannot find any reason why this practice should be en-

couraged—on the contrary, all that has been said of the evil effects of tobacco, either snuffed or chewed, apply to this form of using it, with equal force. But, this is liable to some objections which the others are not. Thus the constant introduction of smoke into the air passages cannot be otherwise than detrimental. I am, however, very doubtful whether any of the fresh smoke enters the lungs at each *draw* of the cigar or pipe: smokers frequently retain the smoke in their mouth and breathe through the nose, and any one, accustomed to the use of pipes or cigars, will remember that the accidental introduction of fresh tobacco smoke into the larynx, or windpipe, produced a cough. But after the expulsion of the smoke from the mouth, it is drawn in with the air, and by this means an unwholesome and foreign substance is introduced into the most delicate of our organs, the lungs. If any one who is not smoking, enters a room in which several persons are indulging in this practice, his eye will first announce to him that a foreign and irritating body is present in the atmosphere.—Now the lining of the air tubes is as delicate as the covering of the eyes—in fact the two tissues are precisely similar, both being what the anatomist calls mucous tissues.—Whatever produces uncomfortable feelings and irritation in one, is capable of acting in a deleterious manner on the other. The fumes of nitric acid irritate the eyes, cause weeping and an involuntary closure of the eyelids—also affect the windpipe and cause coughing. Wood smoke irritates both eyes and lungs; now no one pretends to say that either the former or the latter are pleasant or innocent. Every one acknowledges that they are injurious.—The smoke of tobacco produces a similar train of symptoms, and is no more pleasant or safe to inhale than wood smoke. A “smoky chimney” is a nuisance—a smoking man is equally obnoxious and detrimental to health. The use of tobacco in the form of cigar or in a pipe, vitiates the atmosphere, the source of strength and health.

Nature has surrounded the globe with a delightful and pure *air*, composed of two gases, oxygen and nitrogen, mixed or combined in proper proportions; every substance added to this air is noxious, and is a source of disease.—Tobacco smoke is a combination of gases and solids, none of which can be introduced into the lungs without detriment. Its constituents are, “much carbonate of ammonia, (hartshorn,) acetate of ammonia, nicotianin, empyreumatic oil, carbonaceous matter, (soot,) moisture, and several gases.” If any one who had never experienced the effects

of tobacco smoke upon his eyes and lungs, was to read the above analysis, he would immediately exclaim, "This substance will make my eyes water and will make me cough. I am certain that hartshorn is a pungent and highly irritating substance. I am confident that the empyreumatic oil, one of the ingredients, and which it is well known is an active poison, capable of producing 'convulsions, coma and death,' ought not to enter my lungs. I know that Nature never intended me to fill my delicate lungs with soot. I know that if my stove-pipe has soot in it, it will not draw. I fear my lungs will be as much injured in the performance of their functions, as the stove-pipe, if I inhale soot."

The practice under consideration has produced death. I have quoted from good authority to prove this point. One young man, we read, was nearly killed, and remained in a critical situation for two days, from the effects of two pipes smoked at his first attempt. Two more cases are recorded in which death took place, one from seventeen, the other from eighteen pipes smoked at a sitting. These are sufficient to prove that during the act of smoking, poisonous substances, capable, in sufficient quantities, of destroying life, are introduced into the system. Can we suppose that the effect will be perfectly innocent if these poisonous substances are introduced at eighteen different periods, instead of at one effort? A man may swallow minute doses of Prussic acid, at frequently repeated intervals, without instant and apparent effect; he may take minute quantities of arsenic, for a long period, without appreciable consequences at each dose. But will any one say that he is not poisoning himself? That these substances, Prussic acid and arsenic, are only poisonous in large quantities, when they carry the victims off almost instantaneously? It is fair to conclude that although one pipe, of the fatal eighteen, would not have produced death or prominent symptoms of disorder, it must have had a certain amount of injurious effect—must have lent its aid in bringing about the fatal termination. One small dose of opium will not cause death, a large one will. Are we to conclude that the consumer of opium who uses this drug in small and frequently repeated doses, is not injured because he does not fall down dead, or vomit or faint? We know that he is injured—that although it requires a steadily increasing dose of the narcotic to produce visible effects, the system is slowly giving way, the drug is silently undermining the frame. In the fact, that an increased quantity of tobacco is necessary to

produce visible effects, in those accustomed to its use, we find nothing different from the action of most agents on the human body. The man who uses opium, as well as he who uses tobacco or alcoholic drinks, becomes accustomed to moderate quantities, and can, with apparent impunity, gradually increase his portion. In all these cases, the powers of Nature are severely tasked—our organs are working vigorously and industriously and incessantly to repair the breaches, to keep out the enemy—death. But like a garrison sorely pressed and constantly attacked, the mended parts of the fortress will be more easily broken, and will require more work to repair them—the structure must give way, the garrison must cease to labor, the incessant attacks upon a fortress, already frequently injured, must overcome it.

Thus, the smoker is not cut off by a *coup de main*—he is worried out by repeated attacks, his forces are gradually destroyed, his ammunition is expended, some weak point crumbles—the enemy rushes in. The whole effort of the army before Troy, for a period of ten years defeated the city. Should we say that the first year's work, because it produced no visible effects, was unavailing?

I have attempted to lead my readers' minds to the conclusion, that a substance which is poisonous in large quantities, is also detrimental to health in smaller, in fact in very minute portions; that although the human system may become so accustomed to many irritating and injurious articles as not to rebel at the moment, not to betray evident signs of the effect of each application; yet still bad consequences ensue and the health is undermined. I have endeavored to show that there was an analogy between tobacco and other medicinal drugs which are poisonous. The reader is now prepared to receive the testimony of observers, upon the effects of tobacco smoke, having first been convinced, by reasoning from analogy, that it is capable of producing the alleged detriment.

"The smoking of tobacco," says Pereira, "gives rise to all the before described effects of large and excessive doses." This cannot be denied—and, moreover, it cannot be denied that excessive use of cigars and pipes has produced death in persons accustomed to the use of the article in question. But, where death is not produced, where smoking is not carried to excess, is the consumption of tobacco in this form injurious? Observations, facts properly recorded, are the true means of deciding any point of this kind. No hypothesis, for or against tobacco, either in the

form of snuff—when chewed or consumed in cigars or pipe, is of any value, when compared with *facts*. We appeal to the facts. Even if this article, from its chemical composition, seemed to be wholesome; even if all other plants of its class or family were nutritious and useful in the animal economy; if a series of fairly recorded cases showed that the use of the article under examination is invariably attended with disastrous results, all hypothesis, all reasoning from analogy must sink into insignificance—the *facts* settle the question. We have, however, proved by reasoning from analogy, that the use of tobacco is detrimental.

Dr. Wright says, "Particularly have I observed the buccal membrane (lining of cheek) in smokers, to become vascular, swollen, irritable and prone to hemorrhage. I have never observed an exception to the fact, that in smokers the voice has deepened in tone, or become hoarse or oppressed through excessive mucous secretion. Many an irritable cough, without increased secretion from the tracheo bronchial membrane, and many a cough dependent upon increased secretion, have I known to follow the frequent use of tobacco in smoking. I believe it to be the great antagonist of the nervous system, especially in its relations to the organs of sense, of reproduction, and of digestion." I shall take the liberty to transcribe the following from the pen of Dr. Laycock, a distinguished London practitioner; although the same has been published in at least one Medical Journal, and in an anti-tobacco pamphlet.

"The consequences of smoking tobacco are manifested in the buccal and pharyngeal mucous membrane, and their diverticula; on the stomach, the lungs, the heart, and on the brain and nervous system. With regard to these consequences, it may be generally stated here that they vary according to the quantity of tobacco smoked, and according to the pathological conditions and peculiarities of the individual himself. Some persons will smoke a very large quantity before certain symptoms arise, while others experience these with a very small quantity.

"The first and simplest morbid result of excessive smoking is an inflammatory condition of the lip and tongue—and this sometimes ends in a separation of the epithelium. Then the tonsils and pharynx suffer, the mucous membrane becoming dry and congested. If the throat be examined, it will be observed to be slightly swollen, with congested veins meandering over the surface, and here and there a streak of mucous. The inflammatory action also extends upwards into the posterior nares, and the smoker feels

from time to time a discharge of mucous from the upper part of the pharynx in consequence of the secretion from the mucous membrane of the nares collecting within them. Sometimes the anterior nerves suffer, but in this case the irritation is not marked by increased secretion so much as by tickling and itching within them. The irritation will also pass to the conjunction, (I am inclined to think from the nose, and not from the direct action of smoke on the eye,) and the results are heat, slight redness, lachrymation, and a peculiar spasmodic action of the orbicularis muscle of the eye, together with intolerance of light, on awaking from sleep in the morning.

"I think the frontal sinuses do not escape, for I find that one of the symptoms, very constantly experienced after excessive smoking, is a heavy, dull ache precisely in the region of these sinuses (directly over the eye.) But, descending along the alimentary canal, we come to the stomach, and here we find the result to be, in extreme cases, the symptoms of gastritis, (inflammation of the stomach.) There is pain and tenderness on pressure of the epigastium, (pit of stomach,) anorexia, (loss of appetite,) nausea on taking food, and constant sensation of sickness and desire to expectorate.

"The action of the heart and lungs is impaired by the influence of the narcotic on the nervous system, but a morbid state of the larynx, trachea and lungs, results from the direct action of smoke. The voice is observed to be rendered hoarser, and with a deeper tone; sometimes a short cough results; and in one case that came under my notice, ulceration of the cartilages of the larynx was, I felt quite certain, a consequence of excessive use of tobacco. This individual had originally contracted the habit of smoking when a sailor, and it had become so inveterate that he literally was never without a pipe in his mouth except when eating or sleeping. If he awoke in the night he lighted his pipe: the moment he finished a meal he did the same. It is only in extreme cases like this, that the inference can be fairly made as to the morbid results of the habit, because there are so many other causes of disease to be estimated at the same time. This particular instance has, however, during my experience, been corroborated by others of a like kind, and I have come to the conclusion that inflammation and ulceration of the larynx in men, are almost exclusively peculiar to the slaves of excessive tobacco-smoking.

"Hæmoptæ (spitting of blood) is another morbid condi-

tion distinctly traceable to this habit. The patient experiences a slight tickling low down in the pharynx or trachea, and hawks up, rather than coughs up, a dark, grumoris-looking blood. I have not been able to ascertain whence this comes. I have known it to flow out of the patient's mouth during the night, or to be effused shortly after lying down. This symptom, worthy of especial notice, however, because it gives great alarm, and may be readily mistaken for pulmonary hemorrhage.

"The action of tobacco-smoking on the heart, so far as I have observed, is depressing. The individual who, from some peculiarity of constitution, feels it in this organ rather than elsewhere, usually complains of a peculiar uneasy sensation about the left nipple—a distressing feeling—not amounting to faintness, but allied to it. In such an example no morbid sound can be detected, but the action of the heart is observed to be feeble, and slightly irregular in rhythm; yet not always so in the same person. An uneasy feeling is also experienced in or beneath the pectoral muscles, but oftener I think on the right side than on the left.

"On the brain the action of tobacco-smoking is sedative. It appears to diminish the rapidity of cerebral action, and checks the flow of ideas through the mind. This, I think, is a certain result; and it is in consequence of this action that smoking is so habitual with studious men, or men of contemplative minds. The phrases 'a quiet pipe,' or a 'comfortable cigar,' are significant of this sedative action. It differs, however, in kind from that of opium or henbane, because, as a *general* rule, tobacco does not dispose to sleep; it may in *individual* instances, but not generally with tobacco-smokers. On the contrary, it rather excites to watchfulness, and in this respect is allied to green tea in its action; or, if not to wakefulness, to dreams, which leave no impression on the memory. When this effect has passed off, there appears to be a greater susceptibility in the nervous centres to impressions, as indicated by trembling of the hands, and irritability of temper.

"There are a few facts which I would now state generally, and which appear secondary effects of smoking. Constipation and hemorrhoid are often experienced by inveterate smokers. Acne of the face, excited and kept up by the habit, I have observed to disappear with the discontinuance of the latter. Blackness of the teeth and gum-boils are not uncommon results. There is also a sallowness of the complexion, an irresoluteness of disposition,

a want of life and energy, to be observed occasionally in inveterate smokers, who are content with smoking—that is to say, who do not drink. I have suspected also that it has induced pulmonary phthisis. It is thought that the sensual energy is impaired by the habit, but on this point I have no facts to detail.”

I have copied this extract entire, because the testimony is strong against smoking, and because the writer's eminent position lends great weight to his observations. The skilful and judicious physician always endeavors to ascertain the cause of a malady, and, if it can be traced, to remove it; for otherwise all his efforts to cure will be unavailing. The words above are clear, and ought to carry conviction to the mind of any man who is not bent on self-destruction. The author states what he has seen; he tells us that he has known tobacco-smoking to produce ill health; he traces its effect from the head to the foot: scarcely a corner of the body escapes the deleterious influence of this pernicious drug. “The action of the heart and lungs is impaired by the influence of the narcotic on the nervous system.” The action of the heart is modified by sympathy with other organs of the body. Thus we have shown that tobacco is a fruitful source of dyspepsia. In certain states of the stomach, which pass under the name of dyspepsia, distressing and violent palpitations are common. If any reader suggests that heart-diseases are frequently found among females, I will not attempt to deny his suggestion, for I know well that *curved spines* are like “household words.” Females are sent to school to be distorted and deformed, by improper positions, forced upon them through the ignorance which perches them on seats without backs. Heart-diseases are the usual concomitants of curved spines. But, because other causes injure health and produce “heart-disease,” it is no objection to, nor does it disprove, the assertion that tobacco-smoking is one cause of these maladies.

The effects of this habit upon the larynx and windpipe is stated, in positive terms, “as almost peculiar to the slave to excessive tobacco-smoking.” “Spitting of blood,” so common now-a-days, is said to be produced by this *luxury*. The writer is confident he has seen many cases of “disease of the throat” and distressing coughs produced by the use of this article.

It would not be strange if it should prove a difficult task to uproot prejudice and blind custom. It will not surprise me if legions of writers should rise up to prove that the

use of tobacco is wholesome, at least not noxious. In fact, one medical gentleman, in Virginia, has written an essay, and has endeavored to prove that heart-diseases, &c., are not more frequent among the users of tobacco than among those who do not use it. This gentleman, however, lives in a tobacco-growing neighborhood, and, like the inhabitants of an "ague country," does not think there is much sickness around him.

I have, in the preceding pages, endeavored to prove, from our knowledge of the laws governing the healthy human organism, that a substance capable of deranging it in large quantities, is also capable of producing disease in small doses frequently repeated. Our experience with poisonous gases, with arsenic, mercury, alcohol, &c., leads us to believe, from analogy, that tobacco will be found equally capable of injuring the healthy system. Moreover, I have quoted the words of distinguished observers, who agree in stating that disease does follow the use of tobacco as a luxury.

Grindrod, in a work called *Bacchus*, states that tobacco fosters and develops a thirst for strong drinks: his assertion is reiterated by many others. If I could produce no other accusation against this weed, than that it excited an appetite for intoxicating liquors, this alone should condemn it; this alone should bring down upon it the anathemas of Church and State. Every "minister" and every temperance man, in fact, every good citizen ought to set his face against an article which leads men into temptation. How inconsistent is the daily petition "lead us not into temptation," if immediately after this solemn appeal to Almighty God, we place temptation in our own mouths. In "*Bacchus*" will be found the following opinions against "the use of tobacco, another popular and dangerous inducement to intemperance." "As a provocative to drinking, it has been condemned by the wisest of men. Raphæl Thorius seems to have been of a similar opinion, for he attributes the discovery of this noxious herb to *Bacchus*, *Silenus*, and the *Satyrs*, the representatives of *drunkenness*, *gluttony*, and *lust*." "Dr. Adam. Clarke, in his admirable Treatise on Tobacco, remarks, that 'so inseparable an attendant is drinking on smoking, that in some places the same word expresses both; thus, *peend*, in the Bengalee language, signifies to drink and to smoke.' 'It is with pain of heart,' adds the same distinguished writer, 'that I am obliged to say, I have known several, who, through their immoderate attachment to the pipe, have become mere

sots.' A writer in the 'Genius of Temperance,' an American publication, states that his practice of smoking and chewing tobacco, *produced a continual thirst for stimulating drinks*; and this tormenting thirst led him into the habit of drinking ale, porter, brandy, and other kinds of spirit, even to the extent, at times, of partial intoxication. This writer adds, 'I reformed; and *after I had subdued this appetite for tobacco, I lost all desire for stimulating drinks.*'

"The amount of intemperance arising from this cause, if followed to its actual issues, would be truly startling. One writer is of the opinion, that it would amount to nothing less than *one-tenth* of the drunkards annually made throughout this nation."

It becomes, then, more necessary that we should abandon the use of so insidious an article, which, as I have shown above, not only is itself poisonous, but leads to the use of one of the greatest curses to the human race—alcohol. I appeal to the experience of any person who has used tobacco, either by chewing or smoking, whether thirst has not been produced, and whether this thirst was not quenched with alcoholic drinks. The writer feels confident, from the result of his own experience, that smoking and drinking go together. They are inseparably connected as *customs*. They are connected from the fact, that if a man smokes a cigar, he produces a depressed state of his nervous system; he feels weak, trembling, &c.; this state demands a stimulus, and a *drink* follows a cigar as an antidote. But the reverse is true; a man drinks a glass of ale, he feels excited, his head feels full, his ideas flow too rapidly; he fears he will get "high" too soon. What does he do to prevent going above par? He takes a "smoke." Experience has taught him these results. I am correct, therefore, in saying that the two are *inseparably* connected. It is my duty to discountenance any habit which leads to the use of ardent spirits. My own experience, as well as that of others, is such as to prove that the use of tobacco is a provocative of intoxication. Intoxication is *sinful*, is a great moral and political evil. The cause of drunkenness must also be sinful. The most inveterate drinker will hardly have the boldness to assert that intemperance is not an evil. I need not, therefore, argue further than that tobacco is a cause of intemperance. Intemperance is acknowledged to be an evil; the causes of an evil must also be an evil; tobacco is a cause of intemperance, therefore tobacco is an evil, and should be banished.

I might proceed to show that the effects of tobacco were *prima facie* evidence of the tendency to excite a desire for

intoxicating drinks; but this is hardly necessary. I have again and again urged upon my reader the effect of tobacco in producing *dyspepsia*. We have, in this, a distressing and depressing malady. The poor creature who has produced this state of stomach, (whatever it may be,) which produces in his case *dyspepsia*, must needs find a "cure." Now there is no remedy so potent as to act as *antidote* and *cure*; he must, then, seek a palliative; something which will aid him to bear "the ills" he has. One man boldly takes brandy or ale as a "tonic" (?) another, a little more scrupulous and fond of *doctoring*, buys "dyspeptic elixirs," "tonic bitters," *et id genus omne*; each thinks he finds relief. Each takes a little for his "stomach's sake." The one takes his *drink*, the other his medicine. Each one is deceiving himself, is treading on the verge of a slippery hill, down which many slide for their "stomach's sake." The chief ingredient, that which charms the swallower and "warms the stomach," in all quack dyspeptic potions, is *alcohol*. If I have chewed or smoked till I have ruined my health, and then take intoxicating liquors as a medicine, the dyspepsia, the ill health, should not be blamed. The tobacco is the *first cause*. Therefore this article by producing disease, produces a desire for strong drinks, and leads to the use of "nostrums," which contain alcohol, &c., create an appetite for strong drinks, where it has not existed before the medicine was taken.

In an agricultural point of view, I am also opposed to the use of tobacco. Thousands of acres of valuable land have been "run out," that is, made so *poor* that they will not raise tobacco or any other crop. Now, *poor farms*, make poor people; poverty goes hand-in-hand with ignorance, both are in good fellowship with intemperance. Bread-stuffs, wool, hemp, flax, or some *useful* article might be raised on lands now occupied in the cultivation of tobacco. We are obliged to import wool into this country. Would it not be more sensible to raise our own wool? The mechanic would have more money, with which to buy a coat, if he did not use tobacco. The manufacturer could supply cloth at a cheaper rate if wool was more plenty. Thus the mechanic would be doubly benefitted if tobacco was not used.

Tobacco-growing states cannot support as many people as wheat-growing or truly agricultural states. "Labor is capital." Population makes capital, by increasing the amount of labor. Therefore, anything which tends, directly or indirectly, to lessen the population of a state, decreases its wealth, its power, and its importance in the

scale of nations. Compare Maryland with Massachusetts. The one is a temperate region, and with a comparatively fertile soil, is "run out;" the other, cold, barren, and rocky, is rising step by step, gaining population, wealth, and strength. Maryland is a tobacco-growing state!

It is an absurd way of meeting the question to say that bread-stuffs are too plenty, that if tobacco-growing countries all were converted into wheat-growing farms, wheat would be too cheap. That we raise so much wheat now that the farmer is not repaid for the trouble of growing it. If I suggested that too much coffee and tea is consumed, I am immediately told that the "natives" of Ceylon and China must be employed. I object to the use of tobacco; the same sort of an argument is used. I am to destroy my health, and to waste my money by using injurious articles of diet, that my neighbors may be employed. The argument will hold good with regard to the manufacture of alcoholic drinks, and also the production of opium. The Chinese must continue to chew opium, the American and European to smoke and drink in order that opium merchants may make money, or vine-growers be supported, or tobacco plantations may thrive. I believe that no injury would arise if all who are now engaged in the production and manufacture of tobacco, should turn their attention to some other branches of industry. Thus there is no danger of too much wool being raised; in fact, American wool is so scarce and so dear, that we are obliged to import. Might not flax and hemp be substituted for tobacco?

If tobacco is injurious, and we may place it in the same category with alcohol, if it renders as many men unfit for labor, by destroying health, as are employed in the manufacture, the account is balanced, the country would lose nothing if we ceased to raise this article; in fact, we would be gainers by the change. A sick man or woman is a burden on the community, whether that man or woman resides in a private house or in an Alms House; in either case the invalid is a consumer and non-producer. Tobacco is useless as an article of diet; its production, therefore, adds nothing to the strength of the community. Upon the *strength*, the bodily power of a country, depends its prosperity and wealth. But it not only adds nothing to the force, it actually takes from the producing power of the country. It lessens the amount of labor; "labor is capital," it lessens the amount of capital. The nation is made poor, although a few individuals may reap fortunes. The distiller "coins money!" The wretched creatures, who

imbibe that which "coins money" for the distiller are made poor; they are rendered unfit for work, they become paupers and burdens on the community. Shall we argue that the use of alcohol is proper because a distiller and five or six men are supported by the production of this article, although hundreds are cut off in the prime of life, and thus the state is robbed.

I reason then with regard to tobacco, that if the use destroys more labor than the production of it employs, it should be abandoned. Another conclusion at which we arrive is that tobacco injures the individual who indulges in the use of it. Whatever injures a number of individuals must injure the nation. War injures a nation, because individuals are injured. Thus, if a thousand able bodied men are killed in battle, certainly a thousand individuals are injured; but the state is deprived of their labor, therefore the state is injured.

The public health receives too little attention. The art of health should be taught in every school. I believe it to be our duty as good citizens, to promote the health of our neighbors and to banish causes of disease. Not alone because I may be sick, but because it is my duty to live and to be industrious, to contribute my share towards increasing the wealth and strength of my country. If my neighbor is sick his property will depreciate; I am healthy and by my industry improve my property and increase its value: a certain amount of taxes is to be raised; I must pay a greater share than my neighbor, because my property is taxed according to its value. Thus my very health and strength are taxed too for my neighbor's weakness. The working man is unable to pay his taxes, because he wastes his substance in so called luxuries which injure his health.

Many a man complains very much at being obliged to pay taxes to educate his neighbor's children. This same grumbler wastes more than twice his tax on a useless and injurious article. He meets my objection to its consumption, by fearing that the prosperity of the country would be endangered if he ceased to chew or smoke. Truly he is a patriot. He belongs to that class who are very patriotic as long as it costs them no sacrifice of selfishness. But his arguments are false. The "school tax" is actually beneficial to him, the tobacco tax actually injurious. The one keeps men from the jail and alms house, the other aids in peopling both, if we are correct in believing it to be a cause of intemperance.

Tobacco deteriorates the land, as I have stated above. It

takes all off and puts nothing on. Suppose the whole country was to be converted into a tobacco plantation. We must beg our beef and bread. Now this might do very well for a short time; but alas! we would be in the plight of the man who killed the goose which laid the golden egg; we would shortly destroy our land; we could neither raise tobacco, beef nor bread. If it would impoverish the nation for the whole people to become tobacco planters and manufacturers, could we find a market for the produce, it must impoverish the country to a certain extent, for a portion of the land to be deteriorated.

THE MORAL EFFECTS.

To attempt to argue that any substance, the use of which produces the alarming physical consequences which I have depicted in the previous pages of this tract, can be otherwise than morally injurious, would make me a very Belial, and "make the worse appear the better reason."

Having established that tobacco, as ordinarily consumed as a luxury, is injurious to the body and is a cause of intemperance, I need scarcely occupy the time of my readers to prove it produces serious moral and mental disorders.

I may state in general terms that the cause which interferes with the healthy operations of the mind, or intellectual faculties must produce injurious moral effects. I have quoted cases to prove that the use of tobacco has produced delirium. But a writer of some celebrity, in speaking of the causes of insanity, says, "In pathology nothing is more generally admitted than the reciprocal influence of the head and digestive organs on each other." "Who can deny the influence of digestion or of all that exhausts the bodily powers, on the manifestations of the mind?" "All that disturbs, excites or weakens the organization, chiefly the nervous system, has an influence on the manifestations of the mind."

We have besides this the testimony of those physicians who have charge of the insane, that tobacco produces an exciting and injurious effect upon this class of patients. The use of tobacco developes, we have argued, a taste for alcoholic drinks; these produce and excite insanity; the children of inebriates, as a general rule are idiots. The children of insane persons are apt to be insane; "whatever exhausts the bodily powers" tends to promote insanity; to

bacco exhausts and is therefore a frequent, though unnoticed cause of the developement of mental alienation. "Everything, therefore, which has a tendency to produce improper excitement either of mind or body, or to inflame the passions, must be viewed as dangerous in its consequences." Tobacco, directly, and indirectly, has a tendency to promote improper excitement." It creates, we say, an appetite for strong drink, upon which follow

"Memory confused, and interrupted thought,
Death's harbingers, lie latent in the draught,
And in the flowers that wreath the sparkling bowl
Fell adders hiss, and poisonous serpents roll."

Any habit, which either by custom or association, leads to other habits which are morally injurious, is itself immoral. The custom of using tobacco, not only creates a desire or thirst for intoxicating beverages, but it has an immoral tendency through its operations. Thus, Dr. Rush says, "The effect of imitation, habit and association, upon morals would furnish ample matter for investigation." All filthy practices are debasing. All the associations of tobacco have an evil tendency. These associations are "heavy headed revel," profaneness, and corrupt conversation. A distinguished American, Prof. Wayland, says, "the discriminating powers of conscience may be injured, by neglecting to reflect upon the moral character of our actions, both before and after we have performed them. As taste is rendered obtuse by neglect, so that we fail to distinguish between elegance and vulgarity, and between beauty and deformity; so if we yield to the impulses of passion, and turn a deaf ear to the monitions of conscience, the dividing line between right and wrong seems gradually to become obliterated.

"For the want of reflection the most pernicious habits are daily formed or strengthened; and, when, to the power of habit is added the seductive influence of passion, it is not wonderful that the virtue of man should be the victim. There must be great "want of reflection" or men would become convinced of the immorality of the use of tobacco as a luxury. If it is only an entering wedge, a stepping stone on the road to ruin, let us pause ere we take the first step, and let us remember that

"The breach though small at first, soon opening wide,
In rushes folly with a full moon tide."

Many persons, who are endeavoring to lead a moral and correct life, permit the use of tobacco, and without reflection set it down as merely a useless habit ; whereas it should be numbered among those which are pernicious and immoral.

We pity the ignorant heathen, who in the performance of their devotions undergo the most cruel torments. We are astonished that they voluntarily inflict upon their bodies wounds and mutilations, either for the sake of religion or for ornament, and we believe these tortures and wounds to be immoral, yet Christians, enlightened, civilized, Americans inflict upon themselves, either through ignorance, or from "want of reflection," physical and mental tortures, by the use of tobacco ! Is not this immoral ? Can it be moral to destroy our bodily vigor, to undermine "the house we live in ?" "A sound mind in a sound body" is an aphorism which none can gainsay. We waste our substance on a useless article ! Is this moral ?

The use of tobacco, directly and indirectly, creates insanity, by its associations it leads me into temptations, by its exhausting effects upon the body it destroys the mind, at least it affects the healthy action of the intellect. The sot, the wretched inebriate, the man of low tastes may, with slight alteration, address to us the warning voice of the discarded statesman—

"Mark but my fall, and that which ruined me,
Friend, I charge thee fling away,"—tobacco.

I need scarcely illustrate the position that the manifestations of the mind are perverted by an unhealthy body. The tobacco lover, deliberately destroys both body and mind, and with the mind, his never dying soul. Is it less criminal to take life "by inches" than suddenly, in "the twinkling of an eye ?" Would not the man be guilty of murder, who, to avoid suspicion killed his victim by slow and insidious poisons ? Would he be *less* guilty than he who destroys life with the dagger of the assassin ? The man who commits suicide is remembered with abhorrence, he is supposed to have destroyed both body and soul. Can he be less guilty, who by a pernicious and useless practice, destroys by scarcely perceptible degrees, his health and sends himself, slowly but surely, to a premature grave ? If the use of tobacco destroys the health of the body, its use should be discontinued : if it also perverts the moral and mental faculties it is doubly wrong. God gave man mind

and reason to raise him above the brute, has he a right to obscure that reason and make it

“Like sweet bells jangled, out of tune and harsh?”

“Providence,” says Prout, in one of the Bridgewater Treatises, “has gifted man with reason; to his reason, therefore, is left the choice of his food and drink, and not to instinct, as among the lower animals. It thus becomes his duty to apply his reason to the regulation of his diet, to shun excess in quantity, and what is noxious in quality, to adhere in short to the simple and natural.”

Instinct would not lead us to indulge in pernicious habits and “what is noxious in quality;” reason certainly does not teach us to partake of an article of diet all of the effects of which are poisonous. Why do we use tobacco? Because the influence of example is all powerful. The child imitates his parent or his teacher. He learns to walk and imitates his parent’s gait; he learns to talk and imitates his accent and his errors: it is imitation which leads him to swear, to drink, to smoke. But the parent or teacher commands the child to avoid the use of tobacco, whilst the same moment, he is rolling “a quid” through his diseased and bleached mouth. What is the effect of this? The child says “my parent tells me not to smoke and chew, yet he indulges in both these practices; I will follow his example.” Here *disobedience* has been produced by the evil example of the parent or teacher. The child has learned to be disobedient, he has learned to imitate a vice, and truly

“Vice is a monster with such frightful mien,
As, to be hated needs but to be seen;
But seen too oft, familiar with his face,
We first endure, then pity, then embrace.”

We learn to endure a small evil, and to *disobey*, we learn to “embrace.” “Whatever fills the memory with scenes of vice, or stimulates the imagination to conceptions of impurity, vulgarity, profanity or thoughtlessness, by the whole of its effect, renders us vicious.”

Those mouths which are habitually soiled with tobacco, are apt to be filled with profanity. Intemperance, profanity, and the consumption of tobacco go hand in hand. Surely the associations of tobacco are immoral, and evil in every respect! The nicer feelings of our nature are blunted by contact with filth. The man who can learn to endure physical filth, has learned one lesson in the art of embracing vice. But the habit of using tobacco becomes so con-

firmed, that the unfortunate user loses all control over it : it strengthens with his strength—as each year rolls round, he has become a greater slave to an injurious practice. Is this moral? Is it proper to encourage an appetite for an article—which appetite we cannot control? The members of churches of some denominations, affect a speech, a gait, a dress, a peculiar cut of the hair, an absence of beard, (in fact they abhor the man who wears the natural appendages of his face,) in order to draw a line between them and “the world.” They are afraid that the tendency of a fashionable coat, with short or long tails, as the case may be, is to evil ; they eschew dancing, music, and innocent games, (I mean amusements;) but this same pattern, this rigid, puritanical observer of forms, and abstainer from light dress and foolish conversation—chews and smokes tobacco !

“ Ye gods, it doth amaze me ! ”

Deliberately indulges in a habit over which he has no control, whose tendency is to evil, whose effects, physically and morally, are bad, a habit indulged in by “ publicans and sinners ! ” He indulges in a custom which he acknowledges to be improper, because he endeavors to prevent his children from falling into it. Can we admire the *consistency* of these men ?

I have said that men are only superior to animals in the possession of intellect, of the ability to acquire knowledge. Any agent or course of conduct which destroys or impedes our improvement, physically or mentally, is immoral. The use of tobacco ruins the bodily health, and with it, as a natural consequence, the mental powers. Can a sick man fulfil the behests of his Creator ? Does the miserable idiot, the raving maniac, the trembling and complaining hypochondriac, equal the description of the poet, that man is

“ A creature who not prone
And brute as other creatures, but endued
With sanctity of reason, might, erect
His stature, and upright with front serene,
Govern the rest, self-knowing.”

This is a picture of the healthy man, who in full possession of his bodily strength, possesses also a mind, by means of which he governs, not only the inferior animals, but his fellow men. Cæsar in health and strength is

“ become a god ; and Cassius is
A wretched creature, and must bend his body.”

But mark the effect of sickness ; the man who

“ must bend his body
If Cesar carelessly but nod on him,”

learns to despise the “ god ” when sickness shakes his frame—Cæsar loses his power, his nod has lost its commanding influence, his eye its force.

“ He had a fever when he was in Spain,
And when the fit was on him, I did mark
How he did shake ; ’tis true, this god did shake :
His coward lips did from their color fly ;
And that same eye whose bend doth awe the world,
Did lose his lustre ; I did hear him groan :
Ay and that tongue of his, that bade the Romans
Mark him, and write his speeches in their books,
Alas ! it cried, *Give me some drink, Titinius,*
As a sick girl.”

The reader will bear in mind the description of the Congressman—he will remember that the strong man, the very Cæsar, had, by the use of tobacco, become like a “ sick girl,” mind and body were enfeebled, his eye “ did lose its lustre,” he had fallen from his high estate, he was lower than a brute. Endowed with strength, he had become feeble ; with reason, he had become imbecile.

“ It is good neither to eat flesh, nor to drink wine, nor *any thing* whereby thy brother stumbleth or is offended, or is made weak.” The use of tobacco, as has been demonstrated, is immoral, because it destroys health, it perverts the intellect, being an intoxicating drug, and it leads into temptation. God gave man reason, and he has in the truths of revealed religion offered to us a balm for all wounds. Is it proper and moral for a Christian to fly to tobacco for consolation—to *intoxicate* himself ? Surely there is no consistency in condemning the unfortunate man who has an uncontrollable appetite for strong drink, when we are indulging in a habit which we acknowledge to be beyond our power to curb. Intemperance in the use of alcohol is a more glaring evil, but scarcely more injurious. The inspired Apostle tells us neither “ to drink wine nor *any thing*,” that is, we are to avoid all habits, customs, &c. which may lead our neighbors into temptation, or “ put a stumbling block ” or an occasion to fall, in our brother’s way.

Even if the use of this so-called luxury had not been proved to be physically injurious, the same arguments which are brought forward against frivolous conversation, dancing, &c. would be as powerful against the use of tobacco

The moderate, as well as immoderate use of an article, ought to be discontinued, if it leads to intemperance, and if its tendency is in the slightest degree to evil. Even an innocent custom ought to be abandoned if it leads to others which are immoral. It is my duty to avoid acting in such a manner that my conduct may be an excuse for evil actions by my neighbors. If I must give up dancing, music, fashionable dress and amusements, if I must carefully trim my beard, if I must school the muscles of my face to rigidity, lest I should "put a stumbling block in my brother's way," does it not follow, as a matter of course, that I must abandon the use of a poisonous, useless and intoxicating drug?

It is the duty of the Christian to be temperate in all things, and to avoid giving offence; it is the duty of the good citizen to eschew that which impoverishes him and the nation; it is the bounden duty of all *temperance* men to unite in a crusade against this powerful promoter of thirst. Drunkenness is on the increase; it is useless to preach against vice if you do not remove the temptations. It is foolish to attempt to cure a disease, whilst a manifest, palpable cause is still existing; it would only be imitating the labors of Sisyphus. Vice and immorality of every kind stalk abroad in our beautiful land, disease and death are slaying with ruthless hand; it behoves us to *educate* the rising generation, (I use the term in its most comprehensive sense;) it also is necessary that we should remember the daily supplication to our Creator, "lead us not into temptation," and that we should avoid leading others into temptation. We must not trust to our pumps, we must make the ship sound, we must stop every crevice.

I have endeavored, in this tract, to lay before my readers some of the most prominent, and, in my opinion, cogent reasons, why the use of tobacco ought to be abandoned. If I have succeeded in leading men to reflect, or even if I have carried conviction to the mind of one miserable votary of this pernicious custom, I shall not have lived in vain, but shall have fulfilled that law which enjoins every man to do good in his day and generation.







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